

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application.

**Listing of Claims:**

1-7. (Cancelled).

8. (Currently amended) ~~The compound according to claim 1~~ A compound,  
chosen from

6-(2-butylamino-pyrimidin-4-yl)-3-oxo-2,3-dihydro-pyridazine-4-carboxylic acid (3-pyridin-3-yl-propyl)-amide,

6-(4-hydroxy-3-methoxy-phenyl)-3-oxo-2,3-dihydro-pyridazine-4-carboxylic acid (3-pyridin-3-yl-propyl)-amide,

6-(4-hydroxy-3,5-dimethyl-phenyl)-3-oxo-2,3-dihydro-pyridazine-4-carboxylic acid (3-pyridin-3-yl-propyl)-amide,

6-(4-hydroxy-phenyl)-3-oxo-2,3-dihydro-pyridazine-4-carboxylic acid (3-pyridin-3-yl-propyl)-amide,

6-(2-ethylamino-pyrimidin-4-yl)-3-oxo-2,3-dihydro-pyridazine-4-carboxylic acid 4-chloro-benzylamide,

6-(3-chloro-4-hydroxy-phenyl)-3-oxo-2,3-dihydro-pyridazine-4-carboxylic acid 4-chloro-benzylamide,

6-(4-hydroxy-3,5-dimethyl-phenyl)-3-oxo-2,3-dihydro-pyridazine-4-carboxylic acid 4-chloro-benzylamide,

4-([6-(4-hydroxy-3,5-dimethyl-phenyl)-3-oxo-2,3-dihydro-pyridazine-4-carbonyl]-amino)-methyl)-benzoic acid,

4-({[6-(4-hydroxy-3-methoxy-phenyl)-3-oxo-2,3-dihydro-pyridazine-4-carbonyl]-amino}-methyl)-benzoic acid,

6-(2-butylamino-pyrimidin-4-yl)-3-oxo-2,3-dihydro-pyridazine-4-carboxylic acid (pyridin-3-yl-methyl)-amide,

6-(3-fluoro-4-hydroxy-phenyl)-3-oxo-2,3-dihydro-pyridazine-4-carboxylic acid 4-chloro-benzylamide,

6-(4-hydroxy-3-methyl-phenyl)-3-oxo-2,3-dihydro-pyridazine-4-carboxylic acid 4-chloro-benzylamide,

6-[2-(2-morpholin-4-yl-ethylamino)-pyrimidin-4-yl]-3-oxo-2,3-dihydro-pyridazine-4-carboxylic acid 4-chloro-benzylamide,

6-(4-hydroxy-3-methoxy-phenyl)-3-oxo-2,3-dihydro-pyridazine-4-carboxylic acid 4-chloro-benzylamide,

6-(2-methylamino-pyrimidin-4-yl)-3-oxo-2,3-dihydro-pyridazine-4-carboxylic acid 4-chloro-benzylamide,

R-3-oxo-6-[2-(1-phenyl-ethylamino)-pyrimidin-4-yl]-2,3-dihydro-pyridazine-4-carboxylic acid (3-phenyl-propyl)-amide,

6-(4-hydroxy-phenyl)-3-oxo-2,3-dihydro-pyridazine-4-carboxylic acid 4-chloro-benzylamide,

3-oxo-6-pyridin-4-yl-N-[4-(trifluoromethyl)benzyl]-2,3-dihydropyridazine-4-carboxamide,

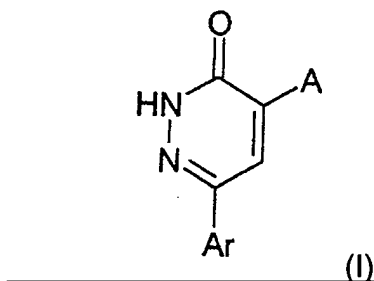
3-oxo-6-pyridin-4-yl-2,3-dihydro-pyridazine-4-carboxylic acid 4-bromo-benzylamide,

3-oxo-6-pyridin-4-yl-N-(pyridin-3-ylmethyl)-2,3-dihydropyridazine-4-carboxamide,

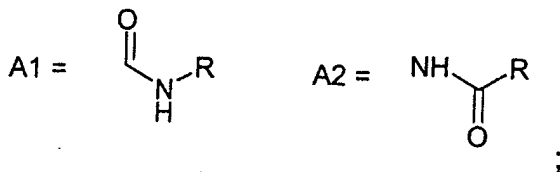
N-(2,4-dichlorobenzyl)-3-oxo-6-pyridin-4-yl-2,3-dihydropyridazine-4-carboxamide,  
3-oxo-6-pyridin-4-yl-2,3-dihydro-pyridazine-4-carboxylic acid 4-chloro-2-fluoro-  
benzylamide, and

N-(4-chlorobenzyl)-3-oxo-6-pyridin-4-yl-2,3-dihydropyridazine-4-carboxamide;  
the racemates, enantiomers, diastereoisomers and mixtures thereof, and the  
tautomers or the physiologically acceptable salts thereof.

9. (Currently amended) A method for inhibiting GSK-3 $\beta$  or the phosphorylation  
of the Tau protein in a patient requiring such treatment comprising administering a  
physiologically active amount of a compound ~~according to claim 1~~ of formula (I)



wherein A represents A1 or A2



R is unsubstituted or at least monosubstituted C<sub>1</sub>-C<sub>10</sub>-alkyl, aryl,  
aryl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)-, heteroaryl, heteroaryl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)-, heterocyclyl,  
heterocyclyl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)-, C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, polycycloalkyl,  
C<sub>2</sub>-C<sub>10</sub>-alkenyl or C<sub>2</sub>-C<sub>10</sub>-alkynyl,

where the substituents are chosen from halogen, -CN, C<sub>1</sub>-C<sub>10</sub>-alkyl,  
-NO<sub>2</sub>, -OR<sub>1</sub>, -C(O)OR<sub>1</sub>, -O-C(O)R<sub>1</sub>, -NR<sub>1</sub>R<sub>2</sub>, -NHC(O)R<sub>1</sub>,

-C(O)NR1R2, -SR1, -S(O)R1, -SO<sub>2</sub>R1, -NHSO<sub>2</sub>R1, -SO<sub>2</sub>NR1R2,  
-C(S)NR1R2, -NHC(S)R1, -O-SO<sub>2</sub>R1, -SO<sub>2</sub>-O-R1, oxo, -C(O)R1,  
-C(NH)NH<sub>2</sub>, heterocyclyl, C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, aryl-(C<sub>1</sub>-C<sub>6</sub>-alkyl)-, aryl,  
heteroaryl, trifluoromethyl, trifluoromethylsulfanyl and trifluoromethoxy,

and the substituents aryl, heterocyclyl and heteroaryl may further be at  
least monosubstituted with C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halogen,  
trifluoromethyl, trifluoromethoxy or OH;

Ar is unsubstituted or at least monosubstituted aryl or heteroaryl;

where the substituents are chosen from halogen, -CN, NO<sub>2</sub>,  
C<sub>1</sub>-C<sub>10</sub>-alkyl, -OR1, -C(O)OR1, -O-C(O)R1, -NR1R2, -NHC(O)R1,  
-C(O)NR1R2, -NHC(S)R1, -C(S)NR1R2, -SR1, -S(O)R1, -SO<sub>2</sub>R1,  
-NHSO<sub>2</sub>R1, -SO<sub>2</sub>NR1R2, -O-SO<sub>2</sub>R1, -SO<sub>2</sub>-O-R1, aryl, heteroaryl,  
aryl-(C<sub>1</sub>-C<sub>6</sub>-alkyl)-, formyl, trifluoromethyl and trifluoromethoxy,

and the substituents aryl and heteroaryl may further be at least  
monosubstituted with C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halogen, trifluoromethyl,  
trifluoromethoxy or OH;

R1 and R2, independently from each other, are

hydrogen;

unsubstituted or at least monosubstituted C<sub>1</sub>-C<sub>10</sub>-alkyl,  
C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, aryl, aryl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)-, C<sub>2</sub>-C<sub>10</sub>-alkenyl,  
C<sub>2</sub>-C<sub>10</sub>-alkinyl, heterocyclyl, heterocyclyl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)- or heteroaryl,  
where the substituents are chosen from halogen, C<sub>1</sub>-C<sub>6</sub>-alkyl,  
C<sub>1</sub>-C<sub>6</sub>-alkoxy, CN, NO<sub>2</sub>, NH<sub>2</sub>, (C<sub>1</sub>-C<sub>6</sub>-alkyl)amino-,  
di(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino-, OH, COOH, -COO-(C<sub>1</sub>-C<sub>6</sub>-alkyl), -CONH<sub>2</sub>, formyl,  
trifluoromethyl and trifluoromethoxy;

heteroaryl is a 5 to 10-membered, aromatic, mono- or bicyclic heterocycle  
containing one or more heteroatoms chosen from N, O and S;

aryl is phenyl, indanyl, indenyl or naphthyl;

heterocyclyl is a 5 to 10-membered, aliphatic, mono- or bicyclic heterocycle containing one or more heteroatoms chosen from N, O and S;

or the racemates, enantiomers, diastereoisomers and mixtures thereof, the tautomers or the physiologically acceptable salts thereof;

with the proviso that

(1) A is not -C(O)NH(C<sub>1</sub>-C<sub>6</sub>-alkyl), when Ar is phenyl which is at least monosubstituted with heterocyclyl or heteroaryl containing nitrogen,

(2) the compound is not 3-{4-(3,4,5-trimethoxyanilincarbonyl)-3-oxo-2,3-dihydropyridazine-6-yl}-2-phenyl-pyrazolo[1,5-a]pyridine; 3-{4-(N-ethoxycarbonylmethyl)-carbamoyl-3-oxo-2,3-dihydro-pyridazine-6-yl}-2-phenyl-pyrazolo[1,5-a]pyridine; 3-{4-(N-carboxymethyl)-carbamoyl-3-oxo-2,3-dihydro-pyridazine-6-yl}-2-phenyl-pyrazolo[1,5-a]pyridine; 6-(4-cyanophenyl)-4[(4-carboxybutyl)-aminocarbonyl]-2H-pyridazin-3-one; or 6-(4-methoxyphenyl)-4-methylcarbamoyl-2H-pyridazin-3-one, and

(3) when A is NHCOCH(CH<sub>3</sub>)<sub>2</sub>, Ar is not unsubstituted or at least monosubstituted bicyclic heteroaryl.

10. (Currently amended) ~~[[A]] The method for inhibiting GSK-3 $\beta$  or the phosphorylation of the Tau protein in a patient requiring such treatment comprising administering a physiologically active amount of a compound according to claim 2 according to claim 9, wherein in the formula (I)~~

A is A1;

R is unsubstituted or at least monosubstituted C<sub>1</sub>-C<sub>10</sub>-alkyl, aryl, aryl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)-, heteroaryl, heteroaryl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)-, heterocyclyl,

heterocyclyl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)-, C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, polycycloalkyl,  
C<sub>2</sub>-C<sub>10</sub>-alkenyl or C<sub>2</sub>-C<sub>10</sub>-alkinyl,

where the substituents are chosen from halogen, -CN, C<sub>1</sub>-C<sub>10</sub>-alkyl,  
-NO<sub>2</sub>, -OR<sub>1</sub>, -C(O)OR<sub>1</sub>, -O-C(O)R<sub>1</sub>, -NR<sub>1</sub>R<sub>2</sub>, -NHC(O)R<sub>1</sub>,  
-C(O)NR<sub>1</sub>R<sub>2</sub>, -SR<sub>1</sub>, -S(O)R<sub>1</sub>, -SO<sub>2</sub>R<sub>1</sub>, -NHSO<sub>2</sub>R<sub>1</sub>, -SO<sub>2</sub>NR<sub>1</sub>R<sub>2</sub>,  
-C(S)NR<sub>1</sub>R<sub>2</sub>, -NHC(S)R<sub>1</sub>, -O-SO<sub>2</sub>R<sub>1</sub>, -SO<sub>2</sub>-O-R<sub>1</sub>, oxo, -C(O)R<sub>1</sub>,  
-C(NH)NH<sub>2</sub>, heterocyclyl, C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, aryl-(C<sub>1</sub>-C<sub>6</sub>-alkyl)-, aryl,  
heteroaryl, trifluoromethyl, trifluoromethylsulfanyl and trifluoromethoxy,

and the substituents aryl, heterocyclyl and heteroaryl may further be at  
least monosubstituted with C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halogen,  
trifluoromethyl, trifluoromethoxy or OH;

R<sub>1</sub> and R<sub>2</sub>, independently from each other, are

hydrogen;

unsubstituted or at least monosubstituted C<sub>1</sub>-C<sub>10</sub>-alkyl,  
C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, aryl, aryl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)-, C<sub>2</sub>-C<sub>10</sub>-alkenyl,  
C<sub>2</sub>-C<sub>10</sub>-alkinyl, heterocyclyl, heterocyclyl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)- or heteroaryl,  
where the substituents are chosen from halogen, C<sub>1</sub>-C<sub>6</sub>-alkyl,  
C<sub>1</sub>-C<sub>6</sub>-alkoxy, CN, NO<sub>2</sub>, NH<sub>2</sub>, (C<sub>1</sub>-C<sub>6</sub>-alkyl)amino-,  
di(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino-, OH, COOH, -COO-(C<sub>1</sub>-C<sub>6</sub>-alkyl), -CONH<sub>2</sub>, formyl,  
trifluoromethyl and trifluoromethoxy;

heteroaryl is a 5 to 10-membered, aromatic, mono- or bicyclic heterocycle  
containing one or more heteroatoms chosen from N, O and S;

aryl is phenyl, indanyl, indenyl or naphthyl;

heterocyclyl is a 5 to 10-membered, aliphatic, mono- or bicyclic heterocycle  
containing one or more heteroatoms chosen from N, O and S;

or the racemates, enantiomers, diastereoisomers and mixtures thereof, the tautomers or the physiologically acceptable salts thereof.

11. (Currently amended) ~~[[A]] The method for inhibiting GSK-3 $\beta$  or the phosphorylation of the Tau protein in a patient requiring such treatment comprising administering a physiologically active amount of a compound according to claim 3 according to claim 9, wherein in the formula (I)~~

R is unsubstituted or at least monosubstituted C<sub>1</sub>-C<sub>10</sub>-alkyl, aryl, aryl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)-, heterocyclyl, heterocyclyl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)-, C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, heteroaryl or heteroaryl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)-,

where the substituents are chosen from halogen, -CN, C<sub>1</sub>-C<sub>10</sub>-alkyl, -NO<sub>2</sub>, -OR<sub>1</sub>, -C(O)OR<sub>1</sub>, -O-C(O)R<sub>1</sub>, -NR<sub>1</sub>R<sub>2</sub>, -NHC(O)R<sub>1</sub>, -C(O)NR<sub>1</sub>R<sub>2</sub>, -SR<sub>1</sub>, -S(O)R<sub>1</sub>, -SO<sub>2</sub>R<sub>1</sub>, -NHSO<sub>2</sub>R<sub>1</sub>, -SO<sub>2</sub>NR<sub>1</sub>R<sub>2</sub>, -C(S)NR<sub>1</sub>R<sub>2</sub>, -NHC(S)R<sub>1</sub>, -O-SO<sub>2</sub>R<sub>1</sub>, -SO<sub>2</sub>-O-R<sub>1</sub>, oxo, -C(O)R<sub>1</sub>, -C(NH)NH<sub>2</sub>, heterocyclyl, C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, aryl-(C<sub>1</sub>-C<sub>6</sub>-alkyl)-, aryl, heteroaryl, trifluoromethyl, trifluoromethylsulfanyl and trifluoromethoxy,

and the substituents aryl, heterocyclyl and heteroaryl may further be at least monosubstituted with C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halogen, trifluoromethyl, trifluoroethoxy or OH;

R<sub>1</sub> and R<sub>2</sub>, independently from each other, are

hydrogen;

unsubstituted or at least monosubstituted C<sub>1</sub>-C<sub>10</sub>-alkyl, C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, aryl, aryl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)-, C<sub>2</sub>-C<sub>10</sub>-alkenyl, C<sub>2</sub>-C<sub>10</sub>-alkinyl, heterocyclyl, heterocyclyl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)- or heteroaryl, where the substituents are chosen from halogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, CN, NO<sub>2</sub>, NH<sub>2</sub>, (C<sub>1</sub>-C<sub>6</sub>-alkyl)amino-,

di(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino-, OH, COOH, -COO-(C<sub>1</sub>-C<sub>6</sub>-alkyl), -CONH<sub>2</sub>, formyl, trifluoromethyl and trifluoromethoxy;

heteroaryl is a 5 to 10-membered, aromatic, mono- or bicyclic heterocycle containing one or more heteroatoms chosen from N, O and S;

aryl is phenyl, indanyl, indenyl or naphthyl;

heterocyclyl is a 5 to 10-membered, aliphatic, mono- or bicyclic heterocycle, containing one or more heteroatoms chosen from N, O and S;

or the racemates, enantiomers, diastereoisomers and mixtures thereof, the tautomers or the physiologically acceptable salts thereof.

12. (Currently amended) ~~[[A]] The method for inhibiting GSK-3 $\beta$  or the phosphorylation of the Tau protein in a patient requiring such treatment comprising administering a physiologically active amount of a compound according to claim 4 according to claim 9, wherein in the formula (I)~~

Ar is unsubstituted or at least monosubstituted phenyl, pyridinyl, pyrimidinyl, pyrazolyl, thiophenyl, isoxazolyl, benzo[b]thiophenyl, benzodioxolyl or thiazolo[3,2-b][1,2,4]-thiazolyl,

where the substituents are chosen from halogen, -CN, NO<sub>2</sub>, C<sub>1</sub>-C<sub>10</sub>-alkyl, -OR<sub>1</sub>, -C(O)OR<sub>1</sub>, -O-C(O)R<sub>1</sub>, -NR<sub>1</sub>R<sub>2</sub>, -NHC(O)R<sub>1</sub>, -C(O)NR<sub>1</sub>R<sub>2</sub>, -NHC(S)R<sub>1</sub>, -C(S)NR<sub>1</sub>R<sub>2</sub>, -SR<sub>1</sub>, -S(O)R<sub>1</sub>, -SO<sub>2</sub>R<sub>1</sub>, -NH<sub>2</sub>SO<sub>2</sub>R<sub>1</sub>, -SO<sub>2</sub>NR<sub>1</sub>R<sub>2</sub>, -O-SO<sub>2</sub>R<sub>1</sub>, -SO<sub>2</sub>-O-R<sub>1</sub>, aryl, heteroaryl, aryl-(C<sub>1</sub>-C<sub>6</sub>-alkyl)-, formyl, trifluoromethyl and trifluoromethoxy,

and the substituents aryl and heteroaryl may further be at least monosubstituted with C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halogen, trifluoromethyl, trifluoromethoxy or OH;



R1 and R2, independently from each other, are

hydrogen;

unsubstituted or at least monosubstituted C<sub>1</sub>-C<sub>10</sub>-alkyl,  
C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, aryl, aryl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)-, C<sub>2</sub>-C<sub>10</sub>-alkenyl,  
C<sub>2</sub>-C<sub>10</sub>-alkinyl, heterocyclyl, heterocyclyl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)- or heteroaryl,  
where the substituents are chosen from halogen, C<sub>1</sub>-C<sub>6</sub>-alkyl,  
C<sub>1</sub>-C<sub>6</sub>-alkoxy, CN, NO<sub>2</sub>, NH<sub>2</sub>, (C<sub>1</sub>-C<sub>6</sub>-alkyl) amino-,  
di(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino-, OH, COOH, -COO-(C<sub>1</sub>-C<sub>6</sub>-alkyl), -CONH<sub>2</sub>, formyl,  
trifluoromethyl and trifluoromethoxy;

heteroaryl is a 5 to 10-membered aromatic, mono- or bicyclic heterocycle,  
containing one or more heteroatoms chosen from N, O and S;

aryl is phenyl, indanyl, indenyl or naphthyl;

heterocyclyl is a 5 to 10-membered aliphatic, mono- or bicyclic heterocycle,  
containing one or more heteroatoms chosen from N, O and S;

or the racemates, enantiomers, diastereoisomers and mixtures thereof, the  
tautomers or the physiologically acceptable salts thereof.

13. (Currently amended) ~~[[A]] The method for inhibiting GSK-3 $\beta$  or the~~  
~~phosphorylation of the Tau protein in a patient requiring such treatment comprising~~  
~~administering a physiologically active amount of a compound according to claim 5~~  
according to claim 9, wherein in the formula (I)

A is A1;

R is unsubstituted or at least monosubstituted aryl-(C<sub>1</sub>-C<sub>6</sub>-alkyl)- heteroaryl-  
(C<sub>1</sub>-C<sub>6</sub>-alkyl)- or heterocyclyl-(C<sub>1</sub>-C<sub>6</sub>-alkyl)-.

where the substituents are chosen from halogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, -OH, -O-aryl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, -O-(C<sub>1</sub>-C<sub>6</sub>-alkyl)-N(C<sub>1</sub>-C<sub>6</sub>-alkyl)<sub>2</sub>, -C(O)OH, -C(O)O-(C<sub>1</sub>-C<sub>6</sub>-alkyl), -NH<sub>2</sub>, -N(C<sub>1</sub>-C<sub>6</sub>-alkyl)<sub>2</sub>, -NH(C<sub>1</sub>-C<sub>6</sub>-alkyl), -NH(C<sub>1</sub>-C<sub>10</sub>-cycloalkyl), -C(O)NH<sub>2</sub>, -C(O)NH-heteroaryl, -C(O)NH-(C<sub>1</sub>-C<sub>6</sub>-alkyl), -SO<sub>2</sub>(C<sub>1</sub>-C<sub>6</sub>-alkyl), -SO<sub>2</sub>NH<sub>2</sub>, -C(O)-heterocyclyl, -C(NH)NH<sub>2</sub>, heterocyclyl, aryl-(C<sub>1</sub>-C<sub>6</sub>-alkyl)-, aryl, trifluoromethyl, and trifluoromethoxy.

and the substituents aryl, heterocyclyl and heteroaryl may further be at least monosubstituted with C<sub>1</sub>-C<sub>3</sub>-alkyl, C<sub>1</sub>-C<sub>3</sub>-alkoxy, fluorine, chlorine, bromine, trifluoromethyl, trifluoromethoxy or OH;

heteroaryl is imidazolyl, thiophenyl, furanyl, isoxazolyl, pyridinyl, pyrimidinyl, benzoimidazolyl, indolyl or benzodioxolyl;

aryl is phenyl or naphthyl;

heterocyclyl is morpholinyl, piperazinyl or piperidinyl;

or the racemates, enantiomers, diastereoisomers and mixtures thereof, the tautomers or the physiologically acceptable salts thereof.

14. (Currently amended) ~~[[A]] The method for inhibiting GSK-3 $\beta$  or the phosphorylation of the Tau protein in a patient requiring such treatment comprising administering a physiologically active amount of a compound according to claim 6 according to claim 9, wherein in the formula (I)~~

A is A1;

Ar is unsubstituted or at least monosubstituted phenyl, pyridin-4-yl or pyrimidin-4-yl,

where the substituents are chosen from halogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, -OH, C<sub>1</sub>-C<sub>6</sub>-alkoxy, -C(O)OH, -C(O)O-(C<sub>1</sub>-C<sub>6</sub>-alkyl), -NH<sub>2</sub>, -N(C<sub>1</sub>-C<sub>6</sub>-alkyl)<sub>2</sub>, -NH(C<sub>1</sub>-C<sub>6</sub>-alkyl), -NH(C<sub>1</sub>-C<sub>10</sub>-cycloalkyl), -NH(heterocyclyl-(C<sub>1</sub>-C<sub>6</sub>-alkyl-)), -NH(aryl-(C<sub>1</sub>-C<sub>6</sub>-alkyl-)), -C(O)NH<sub>2</sub>, -C(O)NH-(C<sub>1</sub>-C<sub>6</sub>-alkyl), aryl, and heteroaryl.

and the substituents aryl, heterocyclyl and heteroaryl may further be at least monosubstituted with C<sub>1</sub>-C<sub>3</sub>-alkyl, C<sub>1</sub>-C<sub>3</sub>-alkoxy, fluorine, chlorine, bromine, trifluoromethyl, trifluoromethoxy or OH;

heteroaryl is pyridinyl or pyrimidinyl;

aryl is phenyl or naphthyl;

heterocyclyl is morpholinyl, piperazinyl or piperidinyl;

or the racemates, enantiomers, diastereoisomers and mixtures thereof, the tautomers or the physiologically acceptable salts thereof.

15. (Currently amended) ~~[[A]] The method for inhibiting GSK-3 $\beta$  or the phosphorylation of the Tau protein in a patient requiring such treatment comprising administering a physiologically active amount of a compound according to claim 7~~  
according to claim 9, wherein in the formula (I)

A is A1;

R is unsubstituted or at least monosubstituted benzyl, phenylethyl-, phenylpropyl-, pyridinylmethyl-, pyridinylethyl- or pyridinylpropyl-,

where the substituents are chosen from chlorine, bromine, fluorine, trifluoromethyl, and carboxy;

Ar is unsubstituted or at least monosubstituted pyridin-4-yl, pyrimidin-4-yl or phenyl,

where the substituents are chosen from methylamino-, ethylamino-,

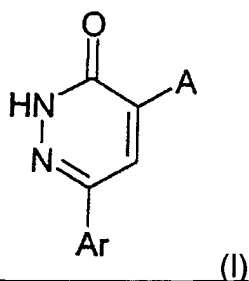
propylamino-, butylamino-, hydroxy, methoxy, ethoxy, methyl, ethyl,

propyl, (phenylethyl)amino-, benzylamino-, and (morpholinylethyl)amino-;

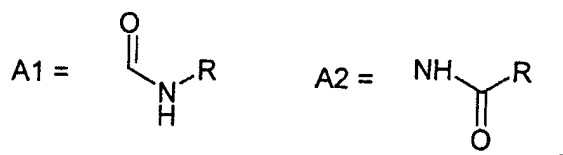
or the racemates, enantiomers, diastereoisomers and mixtures thereof, the tautomers or the physiologically acceptable salts thereof.

16. (Original) A method for inhibiting GSK-3 $\beta$  or the phosphorylation of the Tau protein in a patient requiring such treatment comprising administering a physiologically active amount of a compound according to claim 8.

17. (Currently amended) A method for treating a patient suffering from a disease chosen from neurodegenerative diseases, strokes, cranial and spinal traumas and peripheral neuropathies, obesity, metabolic diseases, type II diabetes, essential hypertension, atherosclerotic cardiovascular diseases, polycystic ovary syndrome, syndrome X, and immunodeficiency ~~and cancer~~, which method comprises administering a physiologically active amount of a compound ~~according to claim 1~~ of formula (I)



wherein A represents A1 or A2



R is unsubstituted or at least monosubstituted C<sub>1</sub>-C<sub>10</sub>-alkyl, aryl, aryl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)-, heteroaryl, heteroaryl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)-, heterocyclyl, heterocyclyl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)-, C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, polycycloalkyl, C<sub>2</sub>-C<sub>10</sub>-alkenyl or C<sub>2</sub>-C<sub>10</sub>-alkinyl,

where the substituents are chosen from halogen, -CN, C<sub>1</sub>-C<sub>10</sub>-alkyl, -NO<sub>2</sub>, -OR<sub>1</sub>, -C(O)OR<sub>1</sub>, -O-C(O)R<sub>1</sub>, -NR<sub>1</sub>R<sub>2</sub>, -NHC(O)R<sub>1</sub>, -C(O)NR<sub>1</sub>R<sub>2</sub>, -SR<sub>1</sub>, -S(O)R<sub>1</sub>, -SO<sub>2</sub>R<sub>1</sub>, -NHSO<sub>2</sub>R<sub>1</sub>, -SO<sub>2</sub>NR<sub>1</sub>R<sub>2</sub>, -C(S)NR<sub>1</sub>R<sub>2</sub>, -NHC(S)R<sub>1</sub>, -O-SO<sub>2</sub>R<sub>1</sub>, -SO<sub>2</sub>-O-R<sub>1</sub>, oxo, -C(O)R<sub>1</sub>, -C(NH)NH<sub>2</sub>, heterocyclyl, C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, aryl-(C<sub>1</sub>-C<sub>6</sub>-alkyl)-, aryl, heteroaryl, trifluoromethyl, trifluoromethylsulfanyl and trifluoromethoxy,

and the substituents aryl, heterocyclyl and heteroaryl may further be at least monosubstituted with C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halogen, trifluoromethyl, trifluoromethoxy or OH;

Ar is unsubstituted or at least monosubstituted aryl or heteroaryl;

where the substituents are chosen from halogen, -CN, NO<sub>2</sub>, C<sub>1</sub>-C<sub>10</sub>-alkyl, -OR<sub>1</sub>, -C(O)OR<sub>1</sub>, -O-C(O)R<sub>1</sub>, -NR<sub>1</sub>R<sub>2</sub>, -NHC(O)R<sub>1</sub>, -C(O)NR<sub>1</sub>R<sub>2</sub>, -NHC(S)R<sub>1</sub>, -C(S)NR<sub>1</sub>R<sub>2</sub>, -SR<sub>1</sub>, -S(O)R<sub>1</sub>, -SO<sub>2</sub>R<sub>1</sub>, -NHSO<sub>2</sub>R<sub>1</sub>, -SO<sub>2</sub>NR<sub>1</sub>R<sub>2</sub>, -O-SO<sub>2</sub>R<sub>1</sub>, -SO<sub>2</sub>-O-R<sub>1</sub>, aryl, heteroaryl, aryl-(C<sub>1</sub>-C<sub>6</sub>-alkyl)-, formyl, trifluoromethyl and trifluoromethoxy,

and the substituents aryl and heteroaryl may further be at least monosubstituted with C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halogen, trifluoromethyl, trifluoromethoxy or OH;

R<sub>1</sub> and R<sub>2</sub>, independently from each other, are

hydrogen;

unsubstituted or at least monosubstituted C<sub>1</sub>-C<sub>10</sub>-alkyl,  
C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, aryl, aryl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)-, C<sub>2</sub>-C<sub>10</sub>-alkenyl,  
C<sub>2</sub>-C<sub>10</sub>-alkynyl, heterocyclyl, heterocyclyl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)- or heteroaryl,  
where the substituents are chosen from halogen, C<sub>1</sub>-C<sub>6</sub>-alkyl,  
C<sub>1</sub>-C<sub>6</sub>-alkoxy, CN, NO<sub>2</sub>, NH<sub>2</sub>, (C<sub>1</sub>-C<sub>6</sub>-alkyl)amino-,  
di(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino-, OH, COOH, -COO-(C<sub>1</sub>-C<sub>6</sub>-alkyl), -CONH<sub>2</sub>, formyl,  
trifluoromethyl and trifluoromethoxy;

heteroaryl is a 5 to 10-membered, aromatic, mono- or bicyclic heterocycle  
containing one or more heteroatoms chosen from N, O and S;

aryl is phenyl, indanyl, indenyl or naphthyl;

heterocyclyl is a 5 to 10-membered, aliphatic, mono- or bicyclic heterocycle  
containing one or more heteroatoms chosen from N, O and S;

or the racemates, enantiomers, diastereoisomers and mixtures thereof, the  
tautomers or the physiologically acceptable salts thereof;

with the proviso that

- (1) A is not -C(O)NH(C<sub>1</sub>-C<sub>6</sub>-alkyl), when Ar is phenyl which is at least  
monosubstituted with heterocyclyl or heteroaryl containing nitrogen,  
(2) the compound is not 3-{4-(3,4,5-trimethoxyanilinocarbonyl)-3-oxo-2,3-  
dihydropyridazine-6-yl}-2-phenyl-pyrazolo[1,5-a]pyridine; 3-{4-(N-  
ethoxycarbonylmethyl)-carbamoyl-3-oxo-2,3-dihydro-pyridazine-6-yl}-2-phenyl-  
pyrazolo[1,5-a]pyridine; 3-{4-(N-carboxymethyl)-carbamoyl-3-oxo-2,3-dihydro-  
pyridazine-6-yl}-2-phenyl-pyrazolo[1,5-a]pyridine; 6-(4-cyanophenyl)-4[(4-  
carboxybutyl)-aminocarbonyl]-2H-pyridazin-3-one; or 6-(4-methoxyphenyl)-4-  
methylcarbamoyl-2H-pyridazin-3-one, and  
(3) when A is NHCOCH(CH<sub>3</sub>)<sub>2</sub>, Ar is not unsubstituted or at least  
monosubstituted bicyclic heteroaryl.

18. (Currently amended) [[A]] The method for treating a patient suffering from  
a disease chosen from neurodegenerative diseases, strokes, cranial and spinal traumas  
and peripheral neuropathies, obesity, metabolic diseases, type II diabetes, essential  
hypertension, atherosclerotic cardiovascular diseases, polycystic ovary syndrome,  
syndrome X, immunodeficiency and cancer, which method comprises administering a  
physiologically active amount of a compound according to claim 2 according to claim  
17, wherein in the formula (I)

A is A1;

R is unsubstituted or at least monosubstituted C<sub>1</sub>-C<sub>10</sub>-alkyl, aryl,  
aryl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)-, heteroaryl, heteroaryl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)-, heterocyclyl,  
heterocyclyl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)-, C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, polycycloalkyl,  
C<sub>2</sub>-C<sub>10</sub>-alkenyl or C<sub>2</sub>-C<sub>10</sub>-alkinyl,

where the substituents are chosen from halogen, -CN, C<sub>1</sub>-C<sub>10</sub>-alkyl,  
-NO<sub>2</sub>, -OR<sub>1</sub>, -C(O)OR<sub>1</sub>, -O-C(O)R<sub>1</sub>, -NR<sub>1</sub>R<sub>2</sub>, -NHC(O)R<sub>1</sub>,  
-C(O)NR<sub>1</sub>R<sub>2</sub>, -SR<sub>1</sub>, -S(O)R<sub>1</sub>, -SO<sub>2</sub>R<sub>1</sub>, -NHSO<sub>2</sub>R<sub>1</sub>, -SO<sub>2</sub>NR<sub>1</sub>R<sub>2</sub>,  
-C(S)NR<sub>1</sub>R<sub>2</sub>, -NHC(S)R<sub>1</sub>, -O-SO<sub>2</sub>R<sub>1</sub>, -SO<sub>2</sub>-O-R<sub>1</sub>, oxo, -C(O)R<sub>1</sub>,  
-C(NH)NH<sub>2</sub>, heterocyclyl, C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, aryl-(C<sub>1</sub>-C<sub>6</sub>-alkyl)-, aryl,  
heteroaryl, trifluoromethyl, trifluoromethylsulfanyl and trifluoromethoxy,

and the substituents aryl, heterocyclyl and heteroaryl may further be at  
least monosubstituted with C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halogen,  
trifluoromethyl, trifluoromethoxy or OH;

R<sub>1</sub> and R<sub>2</sub>, independently from each other, are

hydrogen;

unsubstituted or at least monosubstituted C<sub>1</sub>-C<sub>10</sub>-alkyl, C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, aryl, aryl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)-, C<sub>2</sub>-C<sub>10</sub>-alkenyl, C<sub>2</sub>-C<sub>10</sub>-alkinyl, heterocyclyl, heterocyclyl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)- or heteroaryl, where the substituents are chosen from halogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, CN, NO<sub>2</sub>, NH<sub>2</sub>, (C<sub>1</sub>-C<sub>6</sub>-alkyl)amino-, di(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino-, OH, COOH, -COO-(C<sub>1</sub>-C<sub>6</sub>-alkyl), -CONH<sub>2</sub>, formyl, trifluoromethyl and trifluoromethoxy;

heteroaryl is a 5 to 10-membered, aromatic, mono- or bicyclic heterocycle containing one or more heteroatoms chosen from N, O and S;

aryl is phenyl, indanyl, indenyl or naphthyl;

heterocyclyl is a 5 to 10-membered, aliphatic, mono- or bicyclic heterocycle containing one or more heteroatoms chosen from N, O and S;

or the racemates, enantiomers, diastereoisomers and mixtures thereof, the tautomers or the physiologically acceptable salts thereof.

19. (Currently amended) ~~[[A]] The method for treating a patient suffering from a disease chosen from neurodegenerative diseases, strokes, cranial and spinal traumas and peripheral neuropathies, obesity, metabolic diseases, type II diabetes, essential hypertension, atherosclerotic cardiovascular diseases, polycystic ovary syndrome, syndrome X, immunodeficiency and cancer, which method comprises administering a physiologically active amount of a compound according to claim 3 according to claim 17, wherein in the formula (I)~~

R is unsubstituted or at least monosubstituted C<sub>1</sub>-C<sub>10</sub>-alkyl, aryl, aryl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)-, heterocyclyl, heterocyclyl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)-, C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, heteroaryl or heteroaryl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)-,



where the substituents are chosen from halogen, -CN, C<sub>1</sub>-C<sub>10</sub>-alkyl, -NO<sub>2</sub>, -OR<sub>1</sub>, -C(O)OR<sub>1</sub>, -O-C(O)R<sub>1</sub>, -NR<sub>1</sub>R<sub>2</sub>, -NHC(O)R<sub>1</sub>, -C(O)NR<sub>1</sub>R<sub>2</sub>, -SR<sub>1</sub>, -S(O)R<sub>1</sub>, -SO<sub>2</sub>R<sub>1</sub>, -NHSO<sub>2</sub>R<sub>1</sub>, -SO<sub>2</sub>NR<sub>1</sub>R<sub>2</sub>, -C(S)NR<sub>1</sub>R<sub>2</sub>, -NHC(S)R<sub>1</sub>, -O-SO<sub>2</sub>R<sub>1</sub>, -SO<sub>2</sub>-O-R<sub>1</sub>, oxo, -C(O)R<sub>1</sub>, -C(NH)NH<sub>2</sub>, heterocyclyl, C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, aryl-(C<sub>1</sub>-C<sub>6</sub>-alkyl)-, aryl, heteroaryl, trifluoromethyl, trifluoromethylsulfanyl and trifluoromethoxy,

and the substituents aryl, heterocyclyl and heteroaryl may further be at least monosubstituted with C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halogen, trifluoromethyl, trifluoroethoxy or OH;

R<sub>1</sub> and R<sub>2</sub>, independently from each other, are

hydrogen;

unsubstituted or at least monosubstituted C<sub>1</sub>-C<sub>10</sub>-alkyl, C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, aryl, aryl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)-, C<sub>2</sub>-C<sub>10</sub>-alkenyl, C<sub>2</sub>-C<sub>10</sub>-alkinyl, heterocyclyl, heterocyclyl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)- or heteroaryl, where the substituents are chosen from halogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, CN, NO<sub>2</sub>, NH<sub>2</sub>, (C<sub>1</sub>-C<sub>6</sub>-alkyl)amino-, di(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino-, OH, COOH, -COO-(C<sub>1</sub>-C<sub>6</sub>-alkyl), -CONH<sub>2</sub>, formyl, trifluoromethyl and trifluoromethoxy;

heteroaryl is a 5 to 10-membered, aromatic, mono- or bicyclic heterocycle containing one or more heteroatoms chosen from N, O and S;

aryl is phenyl, indanyl, indenyl or naphthyl;

heterocyclyl is a 5 to 10-membered, aliphatic, mono- or bicyclic heterocycle, containing one or more heteroatoms chosen from N, O and S;

or the racemates, enantiomers, diastereoisomers and mixtures thereof, the tautomers or the physiologically acceptable salts thereof.

20. (Currently amended) [[A]] The method for treating a patient suffering from a disease chosen from neurodegenerative diseases, strokes, cranial and spinal traumas and peripheral neuropathies, obesity, metabolic diseases, type II diabetes, essential hypertension, atherosclerotic cardiovascular diseases, polycystic ovary syndrome, syndrome X, immunodeficiency and cancer, which method comprises administering a physiologically active amount of a compound according to claim 4 according to claim 17, wherein in the formula (I)

Ar is unsubstituted or at least monosubstituted phenyl, pyridinyl, pyrimidinyl, pyrazolyl, thiophenyl, isoxazolyl, benzo[b]thiophenyl, benzodioxolyl or thiazolo[3,2-b][1,2,4]-thiazolyl,

where the substituents are chosen from halogen, -CN, NO<sub>2</sub>, C<sub>1</sub>-C<sub>10</sub>-alkyl, -OR<sub>1</sub>, -C(O)OR<sub>1</sub>, -O-C(O)R<sub>1</sub>, -NR<sub>1</sub>R<sub>2</sub>, -NHC(O)R<sub>1</sub>, -C(O)NR<sub>1</sub>R<sub>2</sub>, -NHC(S)R<sub>1</sub>, -C(S)NR<sub>1</sub>R<sub>2</sub>, -SR<sub>1</sub>, -S(O)R<sub>1</sub>, -SO<sub>2</sub>R<sub>1</sub>, -NH-SO<sub>2</sub>R<sub>1</sub>, -SO<sub>2</sub>NR<sub>1</sub>R<sub>2</sub>, -O-SO<sub>2</sub>R<sub>1</sub>, -SO<sub>2</sub>-O-R<sub>1</sub>, aryl, heteroaryl, aryl-(C<sub>1</sub>-C<sub>6</sub>-alkyl)-, formyl, trifluoromethyl and trifluoromethoxy,

and the substituents aryl and heteroaryl may further be at least monosubstituted with C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halogen, trifluoromethyl, trifluoromethoxy or OH;

R<sub>1</sub> and R<sub>2</sub>, independently from each other, are

hydrogen;

unsubstituted or at least monosubstituted C<sub>1</sub>-C<sub>10</sub>-alkyl, C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, aryl, aryl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)-, C<sub>2</sub>-C<sub>10</sub>-alkenyl, C<sub>2</sub>-C<sub>10</sub>-alkinyl, heterocyclyl, heterocyclyl-(C<sub>1</sub>-C<sub>10</sub>-alkyl)- or heteroaryl, where the substituents are chosen from halogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, CN, NO<sub>2</sub>, NH<sub>2</sub>, (C<sub>1</sub>-C<sub>6</sub>-alkyl) amino-,

di(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino-, OH, COOH, -COO-(C<sub>1</sub>-C<sub>6</sub>-alkyl), -CONH<sub>2</sub>, formyl, trifluoromethyl and trifluoromethoxy;

heteroaryl is a 5 to 10-membered aromatic, mono- or bicyclic heterocycle, containing one or more heteroatoms chosen from N, O and S;

aryl is phenyl, indanyl, indenyl or naphthyl;

heterocyclyl is a 5 to 10-membered aliphatic, mono- or bicyclic heterocycle, containing one or more heteroatoms chosen from N, O and S;

or the racemates, enantiomers, diastereoisomers and mixtures thereof, the tautomers or the physiologically acceptable salts thereof.

21. (Currently amended) ~~[[A]] The method for treating a patient suffering from a disease chosen from neurodegenerative diseases, strokes, cranial and spinal traumas and peripheral neuropathies, obesity, metabolic diseases, type II diabetes, essential hypertension, atherosclerotic cardiovascular diseases, polycystic ovary syndrome, syndrome X, immunodeficiency and cancer, which method comprises administering a physiologically active amount of a compound according to claim 5 according to claim 17, wherein in the formula (I)~~

A is A1;

R is unsubstituted or at least monosubstituted aryl-(C<sub>1</sub>-C<sub>6</sub>-alkyl)- heteroaryl-(C<sub>1</sub>-C<sub>6</sub>-alkyl)- or heterocyclyl-(C<sub>1</sub>-C<sub>6</sub>-alkyl)-,

where the substituents are chosen from halogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, -OH, -O-aryl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, -O-(C<sub>1</sub>-C<sub>6</sub>-alkyl)-N(C<sub>1</sub>-C<sub>6</sub>-alkyl)<sub>2</sub>, -C(O)OH, -C(O)O-(C<sub>1</sub>-C<sub>6</sub>-alkyl), -NH<sub>2</sub>, -N(C<sub>1</sub>-C<sub>6</sub>-alkyl)<sub>2</sub>, -NH(C<sub>1</sub>-C<sub>6</sub>-alkyl), -NH(C<sub>1</sub>-C<sub>10</sub>-cycloalkyl), -C(O)NH<sub>2</sub>, -C(O)NH-heteroaryl, -C(O)NH-(C<sub>1</sub>-C<sub>6</sub>-alkyl), -SO<sub>2</sub>(C<sub>1</sub>-C<sub>6</sub>-alkyl), -SO<sub>2</sub>NH<sub>2</sub>, -C(O)-heterocyclyl, -

C(NH)NH<sub>2</sub>, heterocyclyl, aryl-(C<sub>1</sub>-C<sub>6</sub>-alkyl)-, aryl, trifluoromethyl, and trifluoromethoxy,

and the substituents aryl, heterocyclyl and heteroaryl may further be at least monosubstituted with C<sub>1</sub>-C<sub>3</sub>-alkyl, C<sub>1</sub>-C<sub>3</sub>-alkoxy, fluorine, chlorine, bromine, trifluoromethyl, trifluoromethoxy or OH;

heteroaryl is imidazolyl, thiophenyl, furanyl, isoxazolyl, pyridinyl, pyrimidinyl, benzoimidazolyl, indolyl or benzodioxolyl;

aryl is phenyl or naphthyl;

heterocyclyl is morpholinyl, piperazinyl or piperidinyl;

or the racemates, enantiomers, diastereoisomers and mixtures thereof, the tautomers or the physiologically acceptable salts thereof.

22. (Currently amended) ~~[[A]] The method for treating a patient suffering from a disease chosen from neurodegenerative diseases, strokes, cranial and spinal traumas and peripheral neuropathies, obesity, metabolic diseases, type II diabetes, essential hypertension, atherosclerotic cardiovascular diseases, polycystic ovary syndrome, syndrome X, immunodeficiency and cancer, which method comprises administering a physiologically active amount of a compound according to claim 6 according to claim 17, wherein in the formula (I)~~

A is A1;

Ar is unsubstituted or at least monosubstituted phenyl, pyridin-4-yl or pyrimidin-4-yl,

where the substituents are chosen from halogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, -OH, C<sub>1</sub>-C<sub>6</sub>-alkoxy, -C(O)OH, -C(O)O-(C<sub>1</sub>-C<sub>6</sub>-alkyl), -NH<sub>2</sub>, -N(C<sub>1</sub>-C<sub>6</sub>-alkyl)<sub>2</sub>,

-NH(C<sub>1</sub>-C<sub>6</sub>-alkyl), -NH(C<sub>1</sub>-C<sub>10</sub>-cycloalkyl), -NH(heterocyclyl-(C<sub>1</sub>-C<sub>6</sub>-alkyl-)),  
-NH(aryl-(C<sub>1</sub>-C<sub>6</sub>-alkyl-)), -C(O)NH<sub>2</sub>, -C(O)NH-(C<sub>1</sub>-C<sub>6</sub>-alkyl), aryl, and  
heteroaryl,

and the substituents aryl, heterocyclyl and heteroaryl may further be at  
least monosubstituted with C<sub>1</sub>-C<sub>3</sub>-alkyl, C<sub>1</sub>-C<sub>3</sub>-alkoxy, fluorine, chlorine,  
bromine, trifluoromethyl, trifluoromethoxy or OH;

heteroaryl is pyridinyl or pyrimidinyl;

aryl is phenyl or naphthyl;

heterocyclyl is morpholinyl, piperazinyl or piperidinyl;

or the racemates, enantiomers, diastereoisomers and mixtures thereof, the  
tautomers or the physiologically acceptable salts thereof.

23. (Currently amended) ~~[[A]] The method for treating a patient suffering from  
a disease chosen from neurodegenerative diseases, strokes, cranial and spinal traumas  
and peripheral neuropathies, obesity, metabolic diseases, type II diabetes, essential  
hypertension, atherosclerotic cardiovascular diseases, polycystic ovary syndrome,  
syndrome X, immunodeficiency and cancer, which method comprises administering a  
physiologically active amount of a compound according to claim 7 according to claim  
17, wherein in the formula (I)~~

A is A1;

R is unsubstituted or at least monosubstituted benzyl, phenylethyl-,  
phenylpropyl-, pyridinylmethyl-, pyridinylethyl- or pyridinylpropyl-

where the substituents are chosen from chlorine, bromine, fluorine, trifluoromethyl, and carboxy;

Ar is unsubstituted or at least monosubstituted pyridin-4-yl, pyrimidin-4-yl or phenyl,

where the substituents are chosen from methylamino-, ethylamino-, propylamino-, butylamino-, hydroxy, methoxy, ethoxy, methyl, ethyl, propyl, (phenylethyl)amino-, benzylamino-, and (morpholinylethyl)amino-;

or the racemates, enantiomers, diastereoisomers and mixtures thereof, the tautomers or the physiologically acceptable salts thereof.

24. (Currently amended) A method for treating a patient suffering from a disease chosen from neurodegenerative diseases, strokes, cranial and spinal traumas and peripheral neuropathies, obesity, metabolic diseases, type II diabetes, essential hypertension, atherosclerotic cardiovascular diseases, polycystic ovary syndrome, syndrome X, and immunodeficiency ~~and cancer~~, which method comprises administering a physiologically active amount of a compound according to claim 8.

25. (Original) The method according to claim 17, wherein the neurodegenerative disease is chosen from Alzheimer's disease, Parkinson's disease, frontoparietal dementia, corticobasal degeneration and Pick's disease.

26. (Original) The method according to claim 17, wherein the disease is chosen from type-II-diabetes and Alzheimer's disease.

27-29. (Cancelled).

30. (New) The method according to claim 24, wherein the neurodegenerative disease is chosen from Alzheimer's disease, Parkinson's disease, frontoparietal dementia, corticobasal degeneration and Pick's disease.

31. (New) The method according to claim 24, wherein the disease is chosen from type-II-diabetes and Alzheimer's disease.